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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Objections

1. Claim 38 objected to because of the following informalities: Claim 38 does not further limit newly amended claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 5, 8, 10-16, 37, 39-41, 43-49, and 51-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterji et al. (USP 5,688,844) in view of Krishanan (USP 5,900,451).

With respect to claim 1, Chatterji discloses a method of servicing a wellbore in contact with a subterranean formation, comprising: displacing a sealant composition comprising a colloidally stabilized latex into the wellbore (see column 4 lines 40-64); wherein the colloidally stabilized latex remains stable in a solution of at least 25 weight percent (wherein this would inherently happen as the composition of Chatterji's stabilized latex emulsion is the same as that of Applicants; wherein the latex in Chatterji would inherently remain stable in the presence of salt because it is stabilized by the third monomer mentioned in column 4 lines 55-64). Chatterji teaches a third monomer to stabilize the latex, but does not disclose that the protective colloid comprises

polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof. Krishnan et al. teaches adding protective colloids, such as polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer in order to stabilize the latex. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chatterji by substituting the colloid of Krishnan in order to achieve the predictable result of a stable latex (see column 1 lines 26-30).

With respect to claim 2, Chatterji discloses that the colloidally stabilized latex comprises: an aliphatic conjugated diene monomer; an additional monomer comprising a non-aromatic unsaturated mono- or di-carboxylic ester monomer, an aromatic unsaturated monomer, a nitrogen-containing monomer, or combinations thereof (see column 4 lines 40-64).

With respect to claims 5 and 37, Chatterji does not disclose that the colloidally stabilized latex comprises an oxyalkylene functional monomer. Krishnan et al. discloses an oxyalkylene monomer in order to add stability to the polymer. It would have been obvious to modify Chatterji by including an oxyalkylene monomer as taught by Krishnan et al. in order to add stability to the polymer.

With respect to claim 8, monovalent ion, a divalent ion, or combinations thereof are well known salts found in wellbores and they would inherently be present.

With respect to claims 10, 47, 51-55, Chatterji discloses that the sealant compositions comprises fibers, beads or combinations thereof (wherein the polymer would inherently be in the form of fibers or beads).

With respect to claims 11, 39, and 43-46, Chatterji discloses that the sealant composition comprises a cement slurry (see column 6 lines 35-48).

With respect to claim 12, Chatterji discloses that the sealant composition is displaced into an annulus and allowed to set (see column 1 lines 6-9).

With respect to claim 13, Chatterji discloses that the sealant composition is positioned in the wellbore to isolate the subterranean formation from a portion of the wellbore, to support a conduit in the wellbore, to plug a void or crack in the conduit, to plug a void or crack in a cement sheath disposed in an annulus of the wellbore, to plug an opening between the cement sheath and the conduit, or combinations thereof (see column 1 lines 11-29).

With respect to claim 14, Chatterji discloses the colloidally stabilized latex comprises a vulcanizable group, a vulcanizing agent, a vulcanization accelerator, a vulcanization retarder, or combinations thereof (see column 3 lines 57-60; wherein sulfur is a vulcanizing agent).

With respect to claim 15, Chatterji discloses that the colloidally stabilized latex comprises a crosslinkable monomer, an acidic catalyst, a thermosetting resin, or combinations thereof (see column 4 lines 41-54).

With respect to claims 16 and 58, Chatterji discloses combining a drilling fluid with the sealant composition near a loss-circulation zone, thereby forming a solid mass in the loss-circulation zone (see column 1 lines 11-29).

With respect to claims 40 and 41, Chatterji discloses that the sealant composition comprises a cement slurry (see column 6 lines 35-48).

With respect to claims 48 and 49, Chatterji discloses that the sealant compositions comprises fibers, beads or combinations thereof (wherein the polymer would be in the form of fibers or beads as this is the shape of sealant compositions).

With respect to claims 56 and 57, Chatterji discloses that the wellbore service comprises cementing in the wellbore (see column 3 lines 38-46).

4. Claims 6, 38, 42, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterji in view of Krishnan in further view of Griffith et al. (USP 6,448,206).

With respect to claim 6, Chatterji does not disclose a functionalized silane. Griffith et al. teaches adding a functionalized silane represented by the formula as claimed by Applicant in order to strengthen the bond between subterranean formations surfaces and the hardened sealing compositions. See column 9 lines 7-20. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chatterji by including a silane as taught by Griffith et al. in order to strengthen the bond between subterranean formation surfaces and the hardened sealing compositions.

With respect to claim 38, see the rejection of claim 1 above.

With respect to claim 42, Chatterji discloses that the sealant composition comprises a cement slurry (see column 6 lines 35-48).

With respect to claim 50, Chatterji discloses that the sealant compositions comprises fibers, beads or combinations thereof (wherein the polymer would be in the form of fibers or beads as this is the shape of sealant compositions).

5. Claims 1, 2, 5, 6, 8, 10-16, and 37-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffith et al. (USP 6,448,206) in view of Krishnan (USP 5,900,251).

With respect to claims 1 and 38, Griffith et al. discloses a method of servicing a wellbore in contact with a subterranean formation, comprising: displacing a sealant composition comprising a colloidally stabilized latex into the wellbore (see column 4 lines 25-39), wherein the colloidally stabilized latex remains substantially stable in a solution of at least 25 weight percent salt without additional stabilizers (wherein the latex in Griffith would inherently remain stable in the presence of salt because it is stabilized by the third monomer mentioned in column 4 lines 40-49). Griffith et al. teaches adding a third monomer to stabilize the emulsion, but does not teach that the protective colloid comprises polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer, or combinations thereof . Krishnan et al. teaches adding protective colloids, such as polyvinylalcohol, a cellulose ether, a natural gum, a synthetic gum, polyacrylic acid, an

acrylate, a poly(vinyl alcohol)co(vinyl amine) copolymer in order to stabilize the latex. It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute the protective colloid of Krishnan for the monomer in Grittith et al. in order to achieve the predictable result of a stable latex.

With respect to claim 2, Griffith et al. discloses that the colloidally stabilized latex comprises: an aliphatic conjugated diene monomer (see column 6 line 48 to column 7 line 2); an additional monomer comprising a non-aromatic unsaturated mono- or di-carboxylic ester monomer, an aromatic unsaturated monomer, a nitrogen-containing monomer, or combinations thereof (see column 6 line 48 to column 7 line 2).

With respect to claims 5 and 37, Griffith et al. does not disclose that the colloidally stabilized latex comprises an oxyalkylene functional monomer. Krishnan et al. discloses an oxyalkylene monomer in order to add stability to the polymer. It would have been obvious to modify Griffith et al. by including a oxyalkylene monomer as taught by Krishnan et al. in order to add stability to the polymer.

With respect to claim 6, Griffith et al. discloses that the colloidally stabilized latex comprises a functionalized silane generally represented by the formula as claimed by applicant (see column 9 line 7-20).

With respect to claim 8, monovalent ion, a divalent ion, or combinations thereof are well known salts found in wellbores and would be present.

With respect to claims 10, 47, 50-55, Griffith et al. discloses that the sealant composition comprises fibers, beads, or combinations thereof (wherein the polymer would be in the form fibers or beads).

With respect to claims 11, 39, and 42-46, Griffith et al. discloses that the sealant composition comprises a cement slurry (see column 9 lines 21-45).

With respect to claim 12, Griffith et al. discloses that the sealant composition is displaced into an annulus of the wellbore and allowed to set.

With respect to claim 13, Griffith et al. discloses the sealant composition is positioned in the wellbore to isolate the subterranean formation from a portion of the wellbore, to support a conduit in the wellbore, to plug a void or crack in the conduit, to plug a void or crack in a cement sheath disposed in an annulus of the wellbore, to plug an opening between the cement sheath and the conduit, or combinations thereof (see the abstract).

With respect to claim 14, Griffith et al. discloses that the colloidally stabilized latex comprises a vulcanizable group, a vulcanizing agent, a vulcanization accelerator, a vulcanization retarder, or combinations thereof (see column 9 lines 21-45).

With respect to claim 15, Griffith et al. discloses that the colloidally stabilized latex comprises a crosslinkable monomer, an acidic catalyst, a thermosetting resin, or combinations thereof (see column 9 lines 21-45, wherein the polymer can be crosslinked).

With respect to claims 16 and 58, Griffith et al. discloses a drilling fluid with the sealant composition near a loss-circulation zone, thereby forming a solid mass in the loss-circulation zone (see column 2 line 64 to column 3 line 10).

With respect to claims 40 and 41, Griffith et al. discloses that the sealant composition comprises a cement slurry (see column 9 lines 21-45).

With respect to claims 48 and 49, Griffith et al. discloses that the sealant composition comprises fibers, beads, or combinations thereof (wherein the polymer would be in the form fibers or beads).

With respect to claims 56 and 57, Griffith et al. discloses cementing in the wellbore (see column 1 lines 11-13 and column 9 line 33).

Response to Arguments

6. Applicant's arguments filed 11/26/08 have been fully considered but they are not persuasive. The Applicant argues that both Chatterji and Griffith teach that LATEX 2000 is in accordance with their teachings. However, LATEX 2000 does not contain the third monomer that both Chatterji and Griffith disclose. It is this third monomer that is a protective colloid which stabilizes the latex. As both Chatterji and Griffith disclose this third monomer, they would inherently be stable in the presence of 25 weight percent salt. While Applicant has given comparison data for LATEX 2000, Applicant has not shown how the claimed invention is different from the compositions containing the third monomers of both Chatterji and Griffith. As the compositions of Chatterji and Griffith are the same as claimed, they would inherently be stable in the presence of salt. In addition, although Chatterji and Griffith don't teach the specific protective colloid claimed, Krishnan does. As noted above, the simple substitution of one known equivalent element for another leads to the predictable results of a stable latex.

The Applicant also argues that the cited references did not disclose a need for or the desirability of latexes that would increase the tackniess of the emulsion. However, it

is not necessary for the cited references to disclose a need. As noted above, the claim would have been obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the instant case, the substitution of one element for the other is not improper hindsight.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE COY whose telephone number is (571)272-5405. The examiner can normally be reached on M-F 7:30-5:00, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David J. Bagnell/
Supervisory Patent Examiner, Art Unit 3672

nac